

REMARKS

With entry of this amendment, claims 61-103 are pending in this application, all of have been newly added. Claims 1-60 have been cancelled from this application, thereby rendering the rejections of these claims moot. Based on the foregoing amendments and following remarks, reconsideration and allowance of this application is respectfully requested.

Newly Added Claims

Applicants submit that claims 61-103 are supported by the specification, as originally filed, and are patentable over the cited prior art.

In particular, independent claims 61 and 80 each recite a surgical implant having circuitry that collectively configures one or more acoustic transducers to both convert an electrical communication signal into an acoustical communication signal for transmission to a location external to the implant, and convert acoustic energy received from a location external to the implant into electrical energy used to support operation of the implant. In contrast, none of the cited references discloses circuitry that is capable of configuring acoustic transducers to have this dual functionality. U.S. Patent Nos. 6,164,284 ("Schulman") and 5,113,859 ("Funke") disclose implantable devices with circuitry that only configures acoustic transducers for communication purposes. U.S. Patent No. 5,749,909 ("Schroppel") discloses implantable devices with circuitry that only configures acoustic transducers for energy conversion.

PCT Publication WO 99/34453 ("Doron") generally discloses circuitry that configures acoustic transducers for communication purposes, and separate circuitry that configures acoustic transducers for stored energy conversion purposes. Notwithstanding Applicants' belief that Doron's general teachings cannot be properly applied to the implantable devices of the other cited references,

Doron does not disclose circuitry that configures the acoustic transducers to have the required dual-functionality in any event. That is, Doron does not disclose circuitry that configures one or more acoustic transducers to perform both a communication function and a stored energy conversion function. Specifically, the acoustic transducer arrangements illustrated in Figs. 1-6 of Doron are not disclosed as being configured by circuitry in any particular manner, and the acoustic transducer arrangements illustrated in Figs. 7-9 of Doron are configured by circuitry to transmit acoustic signals.

In contrast, the surgical implants of the present application (claims 61 and 80) include circuitry that configures the one or more acoustic transducers to perform the dual functions. For example, the circuitry may configure the acoustic transducers in a half-duplex mode (i.e., where the energizing and transmitting functions are temporally distinct) or full-duplex mode (i.e., where the energizing and transmitting functions are simultaneously performed). See, e.g., the specification at page 18, line 18 to page 19, line 10; page 20, lines 18-22; page 21, line 21 to page 22, line 8; page 36, line 12 to page 38, line 19.

Independent claim 99 requires the energy storage device to comprise a relatively fast-charging device and a relatively slow-charging device, wherein the first and second devices are coupled to the one or more acoustic transducers such that the first device is charged first, and the second device is charged only upon substantially charging of the first device. As indicated by the Examiner in the Office Action, none of the cited references discloses this feature.

As such, Applicants submit that independent claims 61, 80, and 99, as well as the claims respectively depending therefrom (claims 62-79, 81-98, and 100-103) are patentable over any combination of Schulman, Funke, Doron or Schroppel.

Conclusion

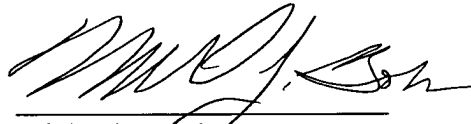
Based on the foregoing, all claims are now allowable and a Notice of Allowance is respectfully requested. If the Examiner has any questions or comments regarding this amendment, the Examiner is respectfully requested to contact the undersigned at (714) 830-0600.

Respectfully submitted,

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